walkways are disturbed during installation or operation of these communications systems, then ADA does not require any changes to nearby walkways.

4.) Public Websites or Kiosks
ITS Integration Projects sometimes include a website, which may be accessible to the public or restricted to designated parties. If the website (or kiosk) will be available to the public (e.g. for distributing traveler information), then it must meet the requirements of Section 508 of the Rehabilitation Act of 1973 (as amended in 1998). This means that the website must include features that enable the use of "assistive technology", by people with certain types of disabilities. Section 508 is a requirement for recipients of federal funds and for federal agencies. If the kiosk or website is not intended for public use, then both the recipient and the federal agency must ensure that accessibility for the information on the technological device is available for any employees.

For more information on ADA Requirements, please see the following websites: www.ADA.gov and www.section508.gov.

13.8 RIGHT OF WAY

Generally, new right of way is rarely needed for ITS projects. Easements may be needed for communications cabling. Occasionally, an ITS project may involve utility relocations or the purchase of right of way for construction of a traffic management center building or information kiosk. For guidance on right of way procedures, see Chapter 13, “Right of Way” of the LAPM.

13.9 PROCUREMENT / CONSTRUCTION

The federal-aid procurement regulations as set forth in 23 CFR 172, 635, 655, and 49 CFR 18, define the requirements that state and local agencies must adhere to when procuring projects with federal-aid highway funds. These procurement regulations identify possible contracting options available for designing and constructing projects including such contracts as “engineering and design related services,” “construction,” and “non-engineering/non-architectural.” The regulations also require use of competitive contract award procedures for any project financed by federal highway funds.

The regulations require state and local agencies to award:

- Construction contracts on the basis of competitive bidding,
- Engineering and Design services contracts on the basis of qualifications-based selection,
- Non-engineering/non-architectural contracts use state approved procurement procedures in accordance with 49 CFR 18.

The procurement approach required for construction projects (as defined by 23 USC 101 and the related FHWA regulations) does **NOT** always apply to ITS projects. Many standalone ITS projects do not meet the FHWA definition of construction.

- **ITS Construction** – If field devices and/or communications infrastructure are being physically installed in the roadway, then that work and required equipment usually meets the definition of construction. Examples are the purchase and installation of new traffic signals, new controller cabinets, vehicle detectors, and conduit for cabling.

- **ITS Engineering & Design** – The purchase and installation of **electronic** equipment (as long as it does not involve "construction" as defined above), **can** be performed as part of P.E. This includes the computers and electronic equipment at a central site, and also the electronic components within the field equipment. Examples are the controller inside a signal cabinet, or the electronic tolling pricing display panels and associated electronics inserted into panel cutouts of changeable message signs already in place.

An agency also has the option of procuring electronic equipment as part of a construction contract (e.g. a complete changeable message sign including electronics). This might be useful when the project is primarily construction, and the electronic equipment is a minor element. However, development of new software should never be included in a "construction" contract.

The Engineering and Design Services contracting mechanism has been successfully used to retain System Engineers and System Integrators that can provide the entire spectrum of services required to implement an ITS project, such as a traffic management center. This might include the specification, procurement, configuration and installation of all hardware and software to provide the functionality required. For these types of services, the consultant selection procedures (qualifications-based) in Chapter 10 of the LAPM must be followed. Figure 13-6 depicts typical contracting arrangements for most High-Risk ITS projects.

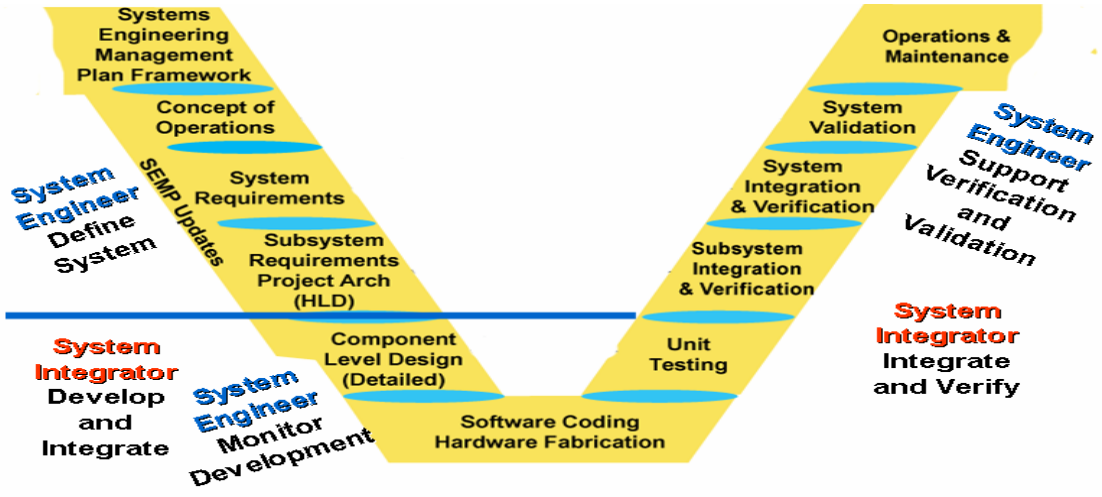

Figure 13-6: Contracting Systems Engineering Services

If an ITS project includes ***minor*** amounts of construction, up to approximately 10% of the cost of the project, then ***flexibility is allowed to have the entire project deployed in the PE phase, without a separate construction phase.*** This option can be very valuable to many ITS projects.

If the construction portion is significant, and a significant amount of system (software procurement and/or software/hardware integration) development is involved, care should be taken to coordinate closely the completion of the system portion with the construction portion to avoid any contract delays. This will be typically performed by different procurement methods - system development by consultant services and construction by low-bid contract.

ITS projects that include a state contribution of funds (STIP funds) have relatively short PE and construction deadlines. These state-mandated deadlines are too short to account for the services of a System Engineer or System Integrator. Therefore, the local agencies must be aware of the need to request time extensions in advance of the deadline in order to be reimbursed for these

services, or classify the construction phase of the consultant's activities as construction engineering. See Chapter 23.2.1, "Timely Use of Funds" of the LAPG for information on STIP deadlines and time extension.

13.10 RECORD KEEPING

The U.S. DOT and the Comptroller General of the United States have the right to access all documents pertaining to federal-aid projects. Nonfederal partners must maintain sufficient documentation to substantiate the costs. Such items as direct labor, fringe benefits, material costs, consultant costs, public involvement costs, subcontract costs, and travel costs should be included in that documentation. **This includes any local-agency costs that are to be reimbursed or used to satisfy matching requirements.** The records for each project must be kept on file for a minimum of three (3) years beyond the payment date of the final voucher.

13.11 REFERENCES

- Title 23 USC Part 103(b)(6), Eligibility for NHS Program
- Title 23 USC Part 133(b), Eligibility for STP Program
- Title 23 CFR Part 172, Administration of Engineering and Design Related Service Contracts
- Title 23 CFR Part 635, Construction and Maintenance
- Title 23 CFR Part 655, Traffic Operations
- Title 23 CFR Part 940, Intelligent Transportation System Architecture and Standards
- Title 28 CFR Part 35, Nondiscrimination on the Basis of Disability in State and Local Government Services (See especially Section 151(b)
- Title 29 USC Part 794d, Rehabilitation Act, Section 508, Electronic and Information Technology
- Title 49 CFR Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
- FHWA Memorandum dated March 22, 2002, Guidance on Federal-aid Eligibility of Operating Costs for Transportation Management Systems
- 2007 Joint Stewardship and Oversight Agreement (FHWA and Caltrans)
- 2007 Systems Engineering Guidebook for ITS, Version 2.0
- LAPM, Chapter 2, Roles and Responsibilities
- LAPM, Chapter 3, Project Authorizations
- LAPM, Chapter 6, Environmental Procedures
- LAPM, Chapter 7, Field Review
- LAPM, Chapter 10, Consultant Selection Procedures
- LAPM, Chapter 11, Design Standards
- LAPM, Chapter 12, Plans, Specifications & Estimate
- LAPM, Chapter 13, Right-of-Way
- LAPM, Chapter 15, Advertise and Award Project
- LAPM, Chapter 16, Administer Construction Contracts
- LAPM, Chapter 17, Project Completion